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10/583,867	08/08/2008	Aviv Tzidon	P-8939-US	8696
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Pearl Cohen Zedek Latzer, LLP			VALENTIN, JUAN D	
1500 Broadway			ART UNIT	
12th Floor			PAPER NUMBER	
New York, NY 10036			2877	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/583,867	Applicant(s) TZIDON ET AL.	
	Examiner JUAN D. VALENTIN	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 40-74 have been considered but are non-persuasive and moot in view of the new ground(s) of rejection. Applicant has not shown in any detail how the prior art used to reject the claims does not specifically teach applicants claimed invention. Applicants arguments are broad with no specific detail as to exactly what part of applicants claim is not taught by the prior art. More specifically, applicant has not provided sufficient arguments as to why the prior art doesn't read on any specific limitations of applicants claims. Applicant has only cut and paste a majority of the claim language and stated that the prior art does not teach as much. What specifically doesn't the prior art teach? What exact portions of the claims doesn't it teach? Why does it not teach them? Broad generalizations without specific reference or pin pointing of what exactly is not taught by the prior art and why it is not taught is not sufficient to overcome the rejections applied with respect to Bouzitat et al. and Dyke as previously applied and currently used again in a different rejection based upon applicants amendments which now include the limitation from dependent claim 52 except in a broader sense. Claim 52 previously claimed that the two beams were generated by a single beacon whose position was known. Applicant has deleted the "at least one beacon" from claim 40 substituting instead the claim language "originating from a known position". The claim language of newly amended claim 40 is broader in scope than original claim 40 because now the two beams can be generated from a plurality of any known position, not just from the one known position of the at least a single beacon as previously covered in scope by original claim 52.

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Examiner has provided a thorough analysis of the claims, how the claim language has been interpreted, and how the prior art has been applied based on those interpretations.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding **claims 45 and 56**, applicant has provided sufficient antecedent basis for the term “optical characteristics”. More specifically applicant has not previously provided support for claimed beams having optical characteristics.

3. **Claims 48 and 50** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language of claim 48 implies that the two beams claimed in claim 40 are generated from the same position. However the claim language of claim 40 does not explicitly limit the scope of the claim to such limiting structure at all. What claim 40 claims is that the "at least two beams originating from a known position relative to the predetermined path", this does not limit the two beams to being generated at same exact position only that the position of generation for both beams is known. Therefore the claim language of claim 48 is indefinite in that it is not known which known position the claim is referring to? Also, claim 48 is indefinite in that it limits the location of both beams to a single known position wherein as shown no such limitation is positively recited in claim 40. Claim 50 claims a single beacon as well therefore is rejected for the same reasons set forth with regard to claim 48 above.

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4. **Claim 51** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 51 depends from claim 48 and further limits the invention to two beacons, however it is not known from the claim language how both beacons can be located at the same position? Further, which beacon of the two beacons introduced in claim 51 generates the two beams as claimed in claim 48?

5. **Claim 56** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not known what "specific angular zones" are? Applicant has not defined within the claim what an "angular zone" is and how a beam can have specific angular zones? Further, how are distinct optical characteristics of a beam characterized by specific angular zones? Do the optical characteristics of a single beam change from one specific angular zone to the next? Where in the specification is there support for such claim limitations?

6. Regarding **claim 57**, the phrase "capable of" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The system either does generate the control signals or it doesn't, the term "capable of" is confusing and it is not known what the scope of the claim language is. Something can be capable of a function without ever performing the function.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 40-48, 51-64, and 67-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyke (USPN 4,700,301 A1).

With respect to **claim 40**, Dyke in conjunction with Figure 8 discloses, an automated positioning system for determining the angular position of a land vehicle 10 (**claim 58**) with respect to a predetermined path (preprogrammed course, Fig. 8, abstract, col. 6, lines 3-26, col. 7, lines 30-33), using at least two beams sweeping across at least a sector of interest said at least two beams originating from a known position relative to the predetermined path (Figures 8-9, col. 6, line 59-col. 7, line 7), the system comprising at least one electro-optical sensor (17) onboard the vehicle for detecting said at least one beam, and a logic circuitry (**claim 41**, microprocessor 4, Figure 1, col. 7, lines 30-33) on board the vehicle for processing a signal generated by said at least one electro-optical sensor so as to determine an angular position of the vehicle with respect to the predetermined path (col. 6, lines 3-26, col. 7, lines 30-33).

Dyke is silent with respect to the actual placement of the microprocessor (logic circuitry). The location of the logic circuitry is a fundamental matter of design choice. Dyke clearly teaches the microprocessor 4 must be in direct communication with the electronically controlled hydraulic steering valves as shown in Figures 1 and 11. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to locate the microprocessor 4 on the

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vehicle for the purposes of providing a secure and compact direct line of communication between the optoelectronic sensor 17, the microprocessor 4, and the electronically controlled hydraulic valves 5 for steering the vehicle along its preprogrammed course (abstract).

With respect to **claims 42, 43, and 45**, Dyke clearly discloses the claimed structure, the logic circuitry and the at least one electro-optical sensor that determines a time of detection for the beams (col. 8, lines 5-9), it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Further, according to applicant's specification, it appears the logic circuitry is no more than a general purpose processor as the specification provides no algorithm that transforms the general purpose processor to a special purpose processor with corresponding explanation of how the processor performs the claims function. Therefore the microprocessor of Dyke is capable of performing applicant's intended use.

With respect to **claim 44**, Dyke further discloses wherein said at least one electro-optical sensor comprises two sensing elements (Fig. 11, reference 17, col. 7, lines 16-19).

With respect to **claims 46-47**, Dyke further discloses wherein the system can be provided with optical filters (**claim 46**, col. 9, lines 30-35). Official Notice taken. It is the position of the Office that the term "optical filters" is a relative term in the art known to include at least but not limited to a wavelength or polarization filter as claimed by applicant in **claim 47** and it would have been well known to one of ordinary skill in the art at the time of the claimed invention to use a wavelength or polarizing filter as the "optical filter" for the purposes of providing additional selectivity as taught to be beneficial by Dyke (col. 9, lines 30-35).

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With respect to **claim 48**, Dyke further discloses at least one off board beacon 2 whose position relative to the predetermined path is known for generating said at least two beams (col. 6, lines 8-64).

With respect to **claims 51-53**, Dyke shows that it is known to provide two beacons (**claim 51**, Fig. 8, ref. 2) and show two synchronized beams (**claim 52**, each beacon 2 emits a beam) in opposite directions across the detector or sweeping a single beam back and forth for an aircraft guidance system. Dyke clearly teaches the use of two rotating beams however is silent with respect to the direction and synchronization in which the beams are swept across the detector, it is obvious to someone of ordinary skill in the art at the time of the invention was made to find the optimum beam rotation direction and synchronization, since it has been held that discovering an optimum value or workable range of a result effective variable involves only routine skill in the art.

With respect to **claims 54 and 55**, Dyke further discloses wherein the beacon is characterized by an optical characteristic such as frequency discrimination (amplitude frequency modulation, col. 9, lines 31-35).

With regard to **claim 56**, as shown above with respect to claim 55, Dyke discloses discriminating the frequency of a beam being swept across the sector, therefore satisfying the limitations of claim 56. The specific angular zone would be the entire sector whose beam is characterized by the frequency discrimination as shown above with respect to claims 55-56.

With respect to **claim 57**, Dyke further discloses generating control signals for controlling maneuvering actuators (Fig. 1, col. 3, line 44-col. 4, line 9).

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With regard to **claims 59-64 and 67-71**, the method is taught by the functions set forth with regards to the apparatus claims 40, 42-45, 48, and 51-58 respectively, as rejected above over Dyke.

8. Claims 40-45, 48-50, 52, 54, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyke in view of Alvarez et al. (USPN 2,555,101, hereinafter Alvarez).

With respect to **claim 40**, Bouzitat in conjunction with Figs. 12 and 13 discloses, an automated positioning system for determining the angular position of a vehicle 83 with respect to a predetermined path (OX, Fig. 10, col. 14, lines 44-52), using at least one beam sweeping (oscillating) across at least a sector of interest (col. 13, lines 53-62, col. 13, line 70-col. 14, line 2), said beam generated originating from a known position O relative to the predetermined path (col. 11, lines 6-14, col. 13, lines 63-65), the system comprising at least one electro-optical sensor (A, B, C) onboard the vehicle for detecting said at least one beam, and a logic circuitry (Fig. 13) on board the vehicle for processing a signal generated by said at least one electro-optical sensor so as to determine an angular position (deviation of the path from desired direction, col. 13, lines 41-51 and col. 14, lines 44-52) of the vehicle with respect to the predetermined path (col. 10, line 73-col. 14, line 67).

Bouzitat substantially teaches the claimed invention except that it fails to show generating two beams originating from a known position through the use of a single beacon of known position for generating the two beams and sweeping one of the beams back and forth across a sector in synchronization with the other beam. Alvarez shows that it is known to provide the use of a single beacon (truck) 3 whose position is known for generating two beams

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and sweeping both of the beams back and forth across a sector in synchronization (**claims 40, 48-50 and 52**, col. 8, line 18-col. 9, line 11 and col. 10, lines 38-52) for a aircraft control system (col. 15, lines 44-72 and col. 17, lines 59-72). It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to combine the aircraft guidance system of Bouzitat with the dual beam beacon aircraft control system of Alvarez for the purposes of producing an indication of the actual position of an aircraft in range, elevation, and azimuth (Alvarez, col. 15, lines 48-66).

With respect to **claim 41**, Bouzitat further discloses wherein the logic circuitry comprises a processor (receiving equipment) (col. 14, lines 17-43).

With respect to **claims 42, 43, and 45**, Bouzitat clearly discloses the claimed structure, the logic circuitry and the at least one electro-optical sensor, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

With respect to **claim 44**, Bouzitat further discloses wherein said at least one electro-optical sensor comprises two sensing elements (Fig. 12, A, B, C).

With respect to **claims 48 and 49**, Bouzitat further discloses at least one off board beacon (O) whose position relative to the predetermined path is known for generating said at least one beam sweeping across at least a sector back and forth (col. 13, line 53-col. 14, line 52).

With respect to **claim 50**, Bouzitat further discloses wherein the beacon is a single beacon (Fig. 12).

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With respect to **claims 54 and 55**, Bouzitat further discloses wherein the beacon is characterized by an optical characteristic such as modulation frequency (col. 13, line 53-col. 14, line 52).

With regard to **claims 59-66, 68, 70, and 71**, the method is taught by the functions set forth with regards to the apparatus claims 40, 42-45, 48-50, 52, and 54-55 respectively, as rejected above over Bouzitat in view of Alvarez.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUAN D. VALENTIN whose telephone number is (571)272-2433. The examiner can normally be reached on Mon.-Fri..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory J. Toatley, Jr./
Supervisory Patent Examiner, Art Unit 2877

Juan D Valentin II
Examiner
Art Unit 2877

/JDVII/
April 7, 2011